

WHAT IS CLAIMED IS:

- 1           1.       A method for providing user location information for a personal information  
2 management program, comprising:  
3           generating position coordinates of a wireless device and time information indicating a  
4 time when the position coordinates were generated, wherein a user is associated with the  
5 wireless device; and  
6           processing the position coordinates and time information to determine information on  
7 locations and associated time periods, wherein for each determined location and associated  
8 time period, the user of the wireless device was located at the location for the associated time  
9 period.
- 1           2.       The method of claim 1, wherein the position coordinates and time information  
2 are generated at the wireless device, further comprising:  
3           transmitting the generated position coordinates and time information to a server; and  
4           storing, with the server, the generated position coordinates and time information in a  
5 database, wherein the server processes the position coordinates and time information to  
6 determine the locations and associated time periods where the user was present.
- 1           3.       The method of claim 1, wherein the position coordinates and time information  
2 are generated at the wireless device, wherein the wireless device processes the position  
3 coordinates and time information to determine the locations and associated time periods where  
4 the user was present, further comprising:  
5           transmitting, with the wireless device, the determined locations and associated time  
6 periods to a server;  
7           storing, with the server, the determined locations and time periods in a database.

1           4.       The method of claim 1, further comprising:  
2           providing a plurality of location boundaries defining multiple location coordinates;  
3           for each location boundary, providing a location description including information  
4           describing the location boundary;  
5           for each generated position coordinate, determining whether the position coordinate is  
6           included in one of the provided location boundaries, wherein at least one determined location  
7           comprises one predefined location boundary including position coordinates, and wherein the  
8           information generated on the at least one location includes the location description for the  
9           predefined location boundary comprising the location.

1           5.       The method of claim 4, wherein at least one location boundary and associated  
2           location description is provided by:  
3           receiving position coordinates from the wireless device defining one location boundary;  
4           and  
5           receiving a location description from the wireless device for the defined location  
6           boundary.

1           6.       The method of claim 4, wherein at least one location boundary and associated  
2           location description is provided by:  
3           receiving location boundary and location description information from a transmitter.

1           7.       The method of claim 6, further comprising:  
2           associating, with the wireless device, the location description information with the  
3           generated position coordinates within the location boundary received from the transmitter; and  
4           transmitting, with the wireless device, the position coordinates, associated time  
5           information, and associated location description to a server, wherein the server processes the  
6           position coordinates and time information to determine location boundaries including the

7 position coordinates, and wherein the information generated on the locations includes the  
8 location description provided by the transmitter for the location boundary comprising the  
9 location.

1 8. The method of claim 1, wherein position coordinates and time information are  
2 generated by multiple wireless devices, wherein each wireless device is associated with one  
3 user, further comprising:  
4 receiving position coordinates and time information from multiple wireless devices; and  
5 storing the position coordinates and time information in a database with information  
6 associating each position coordinate and time information with one user.

1 9. The method of claim 8, wherein processing the position coordinates and time  
2 information to determine information on locations and associated time periods further  
3 comprises:  
4 for each user, determining a series of position coordinates included within one  
5 predefined location boundary, wherein a location description is associated with each predefined  
6 location boundary, and wherein the determined location comprises the predefined location  
7 boundary including the series of position coordinates, and wherein the information generated on  
8 the locations includes the location description.

1 10. The method of claim 1, further comprising:  
2 processing the position coordinates and time information to determine whether a change  
3 in a series of position coordinates indicates a predefined activity occurring during an activity  
4 time period during which the position coordinates were generated;  
5 determining activity time periods that are within the selected time interval; and  
6 generating information on the predefined activities for activity time periods within the  
7 selected time interval.

1           11.     The method of claim 1, further comprising:  
2           receiving a request for information on the user for a selected time interval;  
3           determining time periods associated with locations that are within the selected time  
4           interval; and  
5           generating information on the locations and associated time periods that are within the  
6           selected time interval.

1           12.     The method of claim 11, further comprising:  
2           transmitting the generated information to an initiator of the request for information to  
3           enable the initiator to display the location information and time periods where the user of the  
4           wireless device was located for the time interval.

1           13.     The method of claim 12, wherein the initiator requesting the information  
2           comprises a program installed on a computer, and wherein the generated information is  
3           transmitted over the Internet to the computer.

1           14.     The method of claim 12, wherein the initiator requesting the information is the  
2           wireless device, and wherein the wireless device displays the generated information for the  
3           requested time interval.

1           15.     The method of claim 12, further comprising:  
2           determining scheduled events for the user within the time interval; and  
3           generating information on the scheduled events within the time interval to enable the  
4           initiator to display information on the scheduled events along with the geographic locations  
5           where the user was located during the time interval.

1           16.     The method of claim 1, wherein each position coordinate is expressed as an x,  
2 y, z coordinate.

1           17.     The method of claim 1, further comprising:  
2           providing information on the determined locations comprising one of at least text, audio,  
3 image, and video.

1           18.     A method for generating a calendar for a personal information management  
2 program, comprising:  
3           receiving selection of a time interval;  
4           for the selected time interval, determining position coordinates of a wireless device and  
5 time information indicating a time when the position coordinates were generated, wherein a user  
6 is associated with the wireless device; and  
7           processing the position coordinates and time information to determine information on  
8 locations and associated time periods, wherein for each determined location and associated  
9 time period, the user of the wireless device was located at the location for the associated time  
10 period;  
11           displaying information on the determined locations and time periods where the user of  
12 the wireless device was located for the selected time interval.

1           19.     The method of claim 18, further comprising:  
2           determining scheduled events for the user within the selected time interval; and  
3           displaying information on the scheduled events within the time interval adjacent to the  
4 displayed information on the determined locations and time periods where the user was located  
5 for the selected time interval.

1           20.     The method of claim 18, wherein the selected time interval comprises a selected  
2 time period of a user selected day.

1           21.     The method of claim 18, wherein the selected time interval comprises a default  
2 time period for a current day.

1           22.     The method of claim 18, wherein the information is displayed in a calendar  
2 Graphical User Interface (GUI).

1           23.     A system for providing user location information for a personal information  
2 management program, comprising:  
3           means for generating position coordinates of a wireless device and time information  
4 indicating a time when the position coordinates were generated, wherein a user is associated  
5 with the wireless device; and  
6           means for processing the position coordinates and time information to determine  
7 information on locations and associated time periods, wherein for each determined location and  
8 associated time period, the user of the wireless device was located at the location for the  
9 associated time period.

1           24.     The system of claim 23, wherein the position coordinates and time information  
2 are generated at the wireless device, further comprising:  
3           means for transmitting the generated position coordinates and time information to a  
4 server; and  
5           means for storing, with the server, the generated position coordinates and time  
6 information in a database, wherein the server processes the position coordinates and time  
7 information to determine the locations and associated time periods where the user was present.

1           25.     The system of claim 23, wherein the position coordinates and time information  
2     are generated at the wireless device, wherein the wireless device includes the means for  
3     processing the position coordinates and time information to determine the locations and  
4     associated time periods where the user was present, further comprising:

5           means for transmitting, with the wireless device, the determined locations and  
6     associated time periods to a server; and

7           means for storing, with the server, the determined locations and time periods in a  
8     database.

1           26.     The system of claim 23, further comprising:

2           means for providing a plurality of location boundaries defining multiple location  
3     coordinates;

4           means for providing, for each location boundary, a location description including  
5     information describing the location boundary;

6           means for determining, for each generated position coordinate, whether the position  
7     coordinate is included in one of the provided location boundaries, wherein at least one  
8     determined location comprises one predefined location boundary including position  
9     coordinates, and wherein the information generated on the at least one location includes the  
10    location description for the predefined location boundary comprising the location.

1           27.     The system of claim 26, wherein the means for providing the location  
2     boundaries and associated location descriptions performs:

3           receiving position coordinates from the wireless device defining one location boundary;  
4     and

5           receiving a location description from the wireless device for the defined location  
6     boundary.

1           28.     The system of claim 26, wherein the means for providing the location  
2 boundaries and associated location descriptions performs:  
3           receiving location boundary and location description information from a transmitter.

1           29.     The system of claim 28, further comprising:  
2           means for associating, with the wireless device, the location description information with  
3 the generated position coordinates within the location boundary received from the transmitter;  
4 and  
5           means for transmitting, with the wireless device, the position coordinates, associated  
6 time information, and associated location description to a server, wherein the server processes  
7 the position coordinates and time information to determine location boundaries including the  
8 position coordinates, and wherein the information generated on the locations includes the  
9 location description provided by the transmitter for the location boundary comprising the  
10 location.

1           30.     The system of claim 23, wherein position coordinates and time information are  
2 generated by multiple wireless devices, wherein each wireless device is associated with one  
3 user, further comprising:  
4           means for receiving position coordinates and time information from multiple wireless  
5 devices; and  
6           means for storing the position coordinates and time information in a database with  
7 information associating each position coordinate and time information with one user.

1           31.     The system of claim 30, wherein the means for processing the position  
2 coordinates and time information to determine information on locations and associated time  
3 periods further performs:



4 for each user, determining a series of position coordinates included within one  
5 predefined location boundary, wherein a location description is associated with each predefined  
6 location boundary, and wherein the determined location comprises the predefined location  
7 boundary including the series of position coordinates, and wherein the information generated on  
8 the locations includes the location description.

1 32. The system of claim 23, further comprising:  
2 means for processing the position coordinates and time information to determine  
3 whether a change in a series of position coordinates indicates a predefined activity occurring  
4 during an activity time period during which the position coordinates were generated;  
5 means for determining activity time periods that are within the selected time interval; and  
6 means for generating information on the predefined activities for activity time periods  
7 within the selected time interval.

1 33. The system of claim 23, further comprising:  
2 means for receiving a request for information on the user for a selected time interval;  
3 means for determining time periods associated with locations that are within the selected  
4 time interval; and  
5 means for generating information on the locations and associated time periods that are  
6 within the selected time interval.

1 34. The system of claim 33, further comprising:  
2 means for transmitting the generated information to an initiator of the request for  
3 information to enable the initiator to display the location information and time periods where the  
4 user of the wireless device was located for the time interval.

1           35.     The system of claim 34, wherein the initiator requesting the information  
2 comprises a program installed on a computer, and wherein the generated information is  
3 transmitted over the Internet to the computer.

1           36.     The system of claim 34, wherein the initiator requesting the information is the  
2 wireless device, and wherein the wireless device displays the generated information for the  
3 requested time interval.

1           37.     The method of claim 34, further comprising:  
2 means for determining scheduled events for the user within the time interval; and  
3 means for generating information on the scheduled events within the time interval to  
4 enable the initiator to display information on the scheduled events along with the geographic  
5 locations where the user was located during the time interval.

1           38.     The system of claim 23, wherein each position coordinate is expressed as an x,  
2 y, z coordinate.

1           39.     The system of claim 23, further comprising:  
2 means for providing information on the determined locations comprising one of at least  
3 text, audio, image, and video.

1           40.     A system for generating a calendar for a personal information management  
2 program, comprising:  
3 means for receiving selection of a time interval;  
4 means for determining, for the selected time interval, position coordinates of a wireless  
5 device and time information indicating a time when the position coordinates were generated,  
6 wherein a user is associated with the wireless device; and

7 means for processing the position coordinates and time information to determine  
8 information on locations and associated time periods, wherein for each determined location and  
9 associated time period, the user of the wireless device was located at the location for the  
10 associated time period;  
11 means for displaying information on the determined locations and time periods where  
12 the user of the wireless device was located for the selected time interval.

1 41. The system of claim 40, further comprising:  
2 means for determining scheduled events for the user within the selected time interval;  
3 and  
4 means for displaying information on the scheduled events within the time interval  
5 adjacent to the displayed information on the determined locations and time periods where the  
6 user was located for the selected time interval.

1 42. The system of claim 40, wherein the selected time interval comprises a selected  
2 time period of a user selected day.

1 43. The system of claim 40, wherein the selected time interval comprises a default  
2 time period for a current day.

1 44. The system of claim 40, wherein the information is displayed in a calendar  
2 Graphical User Interface (GUI).

1 45. An article of manufacture including code method for providing user location  
2 information for a personal information management program, comprising:

3           generating position coordinates of a wireless device and time information indicating a  
4   time when the position coordinates were generated, wherein a user is associated with the  
5   wireless device; and  
6           processing the position coordinates and time information to determine information on  
7   locations and associated time periods, wherein for each determined location and associated  
8   time period, the user of the wireless device was located at the location for the associated time  
9   period.

1           46.    The article of manufacture of claim 45, wherein the position coordinates and  
2   time information are generated at the wireless device, further comprising:  
3           transmitting the generated position coordinates and time information to a server; and  
4           storing, with the server, the generated position coordinates and time information in a  
5   database, wherein the server processes the position coordinates and time information to  
6   determine the locations and associated time periods where the user was present.

1           47.    The article of manufacture of claim 45, wherein the position coordinates and  
2   time information are generated at the wireless device, wherein the wireless device processes the  
3   position coordinates and time information to determine the locations and associated time  
4   periods where the user was present, further comprising:  
5           transmitting, with the wireless device, the determined locations and associated time  
6   periods to a server;  
7           storing, with the server, the determined locations and time periods in a database.

1           48.    The article of manufacture of claim 45, further comprising:  
2           providing a plurality of location boundaries defining multiple location coordinates;  
3           for each location boundary, providing a location description including information  
4   describing the location boundary;

5           for each generated position coordinate, determining whether the position coordinate is  
6 included in one of the provided location boundaries, wherein at least one determined location  
7 comprises one predefined location boundary including position coordinates, and wherein the  
8 information generated on the at least one location includes the location description for the  
9 predefined location boundary comprising the location.

1           49.     The article of manufacture of claim 48, wherein at least one location boundary  
2 and associated location description is provided by:  
3           receiving position coordinates from the wireless device defining one location boundary;  
4 and  
5           receiving a location description from the wireless device for the defined location  
6 boundary.

1           50.     The article of manufacture of claim 48, wherein at least one location boundary  
2 and associated location description is provided by:  
3           receiving location boundary and location description information from a transmitter.

1           51.     The article of manufacture of claim 50, further comprising:  
2           associating, with the wireless device, the location description information with the  
3 generated position coordinates within the location boundary received from the transmitter; and  
4           transmitting, with the wireless device, the position coordinates, associated time  
5 information, and associated location description to a server, wherein the server processes the  
6 position coordinates and time information to determine location boundaries including the  
7 position coordinates, and wherein the information generated on the locations includes the  
8 location description provided by the transmitter for the location boundary comprising the  
9 location.

1           52.     The article of manufacture of claim 45, wherein position coordinates and time  
2 information are generated by multiple wireless devices, wherein each wireless device is  
3 associated with one user, further comprising:  
4           receiving position coordinates and time information from multiple wireless devices; and  
5           storing the position coordinates and time information in a database with information  
6 associating each position coordinate and time information with one user.

1           53.     The article of manufacture of claim 52, wherein processing the position  
2 coordinates and time information to determine information on locations and associated time  
3 periods further comprises:  
4           for each user, determining a series of position coordinates included within one  
5 predefined location boundary, wherein a location description is associated with each predefined  
6 location boundary, and wherein the determined location comprises the predefined location  
7 boundary including the series of position coordinates, and wherein the information generated on  
8 the locations includes the location description.

1           54.     The article of manufacture of claim 45, further comprising:  
2           processing the position coordinates and time information to determine whether a change  
3 in a series of position coordinates indicates a predefined activity occurring during an activity  
4 time period during which the position coordinates were generated;  
5           determining activity time periods that are within the selected time interval; and  
6           generating information on the predefined activities for activity time periods within the  
7 selected time interval.

1           55.     The article of manufacture of claim 45, further comprising:  
2           receiving a request for information on the user for a selected time interval;

3           determining time periods associated with locations that are within the selected time  
4 interval; and  
5           generating information on the locations and associated time periods that are within the  
6 selected time interval.

1           56.     The article of manufacture of claim 55, further comprising:  
2           transmitting the generated information to an initiator of the request for information to  
3 enable the initiator to display the location information and time periods where the user of the  
4 wireless device was located for the time interval.

1           57.     The article of manufacture of claim 56, wherein the initiator requesting the  
2 information comprises a program installed on a computer, and wherein the generated  
3 information is transmitted over the Internet to the computer.

1           58.     The article of manufacture of claim 56, wherein the initiator requesting the  
2 information is the wireless device, and wherein the wireless device displays the generated  
3 information for the requested time interval.

1           59.     The article of manufacture of claim 56, further comprising:  
2           determining scheduled events for the user within the time interval; and  
3           generating information on the scheduled events within the time interval to enable the  
4 initiator to display information on the scheduled events along with the geographic locations  
5 where the user was located during the time interval.

1           60.     The article of manufacture of claim 45, wherein each position coordinate is  
2 expressed as an x, y, z coordinate.

1           61.     The article of manufacture of claim 45, further comprising:  
2           providing information on the determined locations comprising one of at least text, audio,  
3           image, and video.

1           62.     An article of manufacture including code for generating a calendar for a  
2           personal information management program by:  
3           receiving selection of a time interval;  
4           for the selected time interval, determining position coordinates of a wireless device and  
5           time information indicating a time when the position coordinates were generated, wherein a user  
6           is associated with the wireless device; and  
7           processing the position coordinates and time information to determine information on  
8           locations and associated time periods, wherein for each determined location and associated  
9           time period, the user of the wireless device was located at the location for the associated time  
10          period;  
11          displaying information on the determined locations and time periods where the user of  
12          the wireless device was located for the selected time interval.

1           63.     The article of manufacture of claim 62, further comprising:  
2           determining scheduled events for the user within the selected time interval; and  
3           displaying information on the scheduled events within the time interval adjacent to the  
4           displayed information on the determined locations and time periods where the user was located  
5           for the selected time interval.

1           64.     The article of manufacture of claim 62, wherein the selected time interval  
2           comprises a selected time period of a user selected day.



1           65.     The article of manufacture of claim 62, wherein the selected time interval  
2 comprises a default time period for a current day.

1           66.     The article of manufacture of claim 62, wherein the information is displayed in a  
2 calendar Graphical User Interface (GUI).

1           67.     A computer readable medium for providing user location information for a  
2 personal information management program, wherein the computer readable medium includes at  
3 least one computer readable data structure comprising:

4                 position coordinates of a wireless device and time information indicating a time when  
5 the position coordinates were generated, wherein a user is associated with the wireless device;  
6 and

7                 locations and associated time periods, wherein for each determined location and  
8 associated time period, the user of the wireless device was located at the location for the  
9 associated time period, and wherein the locations and associated time periods are determined  
10 by processing the position coordinates and time information.

1           68.     The computer readable medium of claim 67, further comprising:  
2                 a plurality of location boundaries defining multiple location coordinates, wherein each  
3 location boundary includes a location description including information describing the location  
4 boundary, wherein for each generated position coordinate, a determination is made as to  
5 whether the position coordinate is included in one of the provided location boundaries, wherein  
6 at least one determined location comprises one predefined location boundary including position  
7 coordinates, and wherein the information generated on the at least one location includes the  
8 location description for the predefined location boundary comprising the location.

1           69.     The computer readable medium of claim 67, wherein a determination is made  
2 of a series of position coordinates included within one predefined location boundary, wherein a  
3 location description is associated with each predefined location boundary, and wherein the  
4 determined location comprises the predefined location boundary including the series of position  
5 coordinates, and wherein the information generated on the locations includes the location  
6 description.

1           70.     The computer readable medium of claim 69, further comprising:  
2 information on predefined activities for activity time periods within the selected time  
3 interval, wherein the predefined activities are determined by processing the position coordinates  
4 and time information to determine whether a change in a series of position coordinates occurred  
5 during an activity time period during which the position coordinates were generated.

1           71.     The computer readable medium of claim 67, wherein each position coordinate  
2 is expressed as an x, y, z coordinate.

1           72.     The computer readable medium of claim 67, further comprising:  
2 information on the determined locations comprising one of at least text, audio, image,  
3 and video.